Public Law 96-345
96th Congress

An Act

To provide for an accelerated program of wind energy research, development, and demonstration, to be carried out by the Department of Energy with the support of the National Aeronautics and Space Administration and other Federal agencies, and for other purposes.

Sept. 8, 1980
[H.R. 5892]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Wind Energy Systems Act of 1980".

Wind Energy Systems Act of 1980.
42 USC 9201 note.

FINDINGS AND PURPOSE

42 USC 9201.

SEC. 2. (a) The Congress finds that—

(1) the United States is faced with a finite and diminishing resource base of native fossil fuels and, as a consequence, must develop as quickly as possible a diversified, pluralistic national energy capability and posture;

(2) the current imbalance between supply and demand for fuels and energy in the United States is likely to grow for many years;

(3) it is in the Nation's interest to provide opportunities for the increased production of electricity from renewable energy sources;

(4) the early wide-spread utilization of wind energy for the generation of electricity and for mechanical power could lead to relief on the demand for existing non-renewable fuel and energy supplies;

(5) the use of large wind energy systems for certain limited applications is already economically feasible;

(6) the use of small wind energy systems for certain applications is already economically feasible, and therefore, the Federal Government should not undertake any financial incentive or financial initiative which may detrimentally affect commercial markets for small wind energy systems;

(7) an aggressive research, development and demonstration program to accelerate widespread utilization of wind energy should solve existing technical problems of converting wind energy into electricity and mechanical energy and, supported by an assured and growing market for wind energy systems during the next decade, should maximize the future contribution of wind energy to the Nation's future energy production;

(8) it is the proper and appropriate role of the Federal Government to undertake research and development, to participate in demonstration programs for wind energy systems, and to assist private industry, other entities, and the general public in hastening the widespread utilization of such systems;

(9) the widespread use of wind energy systems to supplement and replace conventional methods for the generation of electricity and mechanical power would have a beneficial effect upon the environment;

(10) the evaluation of the performance and reliability of wind energy technologies can be expedited by the testing of prototypes under carefully controlled conditions;

(11) innovation and creativity in the development of components and systems for converting wind energy into electricity and mechanical energy can be fostered through encouraging direct contact between the manufacturers of such components and systems and utilities and other persons interested in utilizing such components and systems; and

(12) consistent with the findings of the Domestic Policy Review on Solar Energy, wind energy can potentially contribute 1.7 quads of energy per year by the year 2000.

(b) It is declared to be the policy of the United States and the purpose of this Act to establish during the next eight years an aggressive research, development, demonstration, and technology applications program for converting wind energy into electricity and mechanical energy. It is declared to be the further policy of the United States and the purpose of this Act that the objectives of such program are—

(1) to reduce the average cost of electricity produced by installed wind energy systems, by the end of fiscal year 1988, to a level competitive with conventional energy sources;

(2) to reach a total megawatt capacity in the United States from wind energy systems, by the end of fiscal year 1988, of at least eight hundred megawatts, of which at least one hundred megawatts are provided by small wind energy systems; and

(3) to accelerate the growth of a commercially viable and competitive industry to make wind energy systems available to the general public as an option in order to reduce national consumption of fossil fuel.

DEFINITIONS

42 USC 9202.

SEC. 3. For purposes of this Act—

(1) the term "wind energy system" means a system of components which converts the kinetic energy of the wind into electricity or mechanical power, and which comprises all necessary components, including energy storage, power conditioning, control systems, and transmission systems, where appropriate, to provide electricity or mechanical power for individual, residential, agricultural, commercial, industrial, utility, or governmental use;

(2) the term "small wind energy system" means a wind energy system having a maximum rated capacity of one hundred kilowatts or less;

(3) the term "large wind energy system" means a wind energy system which is not a small wind energy system;

(4) the term "public and private entity" means any individual, corporation, partnership, firm, association, agricultural cooperative, public- or investor-owned utility, public or private institution or group, any State or local government agency, or any other domestic entity;

(5) the term "known wind resource" means a site with an estimated average annual wind velocity of at least twelve miles per hour;

(6) the term "conventional energy source" means energy produced from oil, gas, coal, and nuclear fuels; and

(7) the term "Secretary" means the Secretary of Energy.

COMPREHENSIVE PROGRAM MANAGEMENT PLAN

42 USC 9203.

SEC. 4. (a) The Secretary shall prepare a comprehensive program management plan for the research, development, demonstration, and technology application activities to carry out the purposes of this Act. The program activities shall be conducted in accordance with such comprehensive plan which shall include—

(1) a five-year program for small wind energy systems,

(2) an eight-year program for large wind energy systems, and

(3) a three-year program for wind resource assessment

which shall be consistent with the provisions of sections 5, 6, and 7. In the preparation of such plan, the Secretary shall consult with the Administrator of the National Aeronautics and Space Administration, the Secretary of the Interior, and the heads of such other Federal agencies and such public and private organizations as he deems appropriate.

Consultation.

(b) The Secretary shall transmit the comprehensive program management plan to the Committee on Science and Technology of the House of Representatives and the Committee on Energy and Natural Resources of the Senate within nine months after the date of the enactment of this Act.

Transmittal to congessional committees.

(c) Concurrently with the submission of the President's annual budget to the Congress for each year after the year in which the comprehensive plan is initially transmitted under subsection (b), the Secretary shall transmit to the Congress a detailed description of the comprehensive plan as then in effect, setting forth the modifications which may be necessary to appropriately revise such plan and any changes in circumstances which may have occurred since the plan or the last previous modification thereof was transmitted in accordance with this section. The detailed description of the comprehensive plan under this subsection shall include but need not be limited to a statement setting forth with respect to each of the programs under this Act any changes in—

Detailed description of plan, transmittal to Congress.

(1) the anticipated research, development, demonstration, and technology application objectives to be achieved by the program;

(2) the program elements, management structure, and activities, including any regional aspects and field responsibilities thereof;

(3) the program strategies and technology applications plans, including detailed milestone goals to be achieved during the next fiscal year for all major activities and projects;

(4) any significant economic, environmental, and societal effects which the program may have;

(5) the total estimated cost of individual program items; and

(6) the estimated relative financial contributions of the Federal Government and non-Federal participants in the program.

Such description shall also include a detailed justification of any such changes, a detailed description of the progress made toward achieving the goals of this Act, a statement on the status of interagency cooperation in meeting such goals, and any legislative or other recommendations which the Secretary may have to help attain such goals.

RESEARCH, DEVELOPMENT, AND DEMONSTRATION

42 USC 9204.

SEC. 5. (a) The Secretary shall initiate research and development or accelerate existing research and development in areas in which the

lack of knowledge limits the widespread utilization of wind energy systems in order to achieve the purposes of this Act.

Advanced wind energy systems.

(b)(1) The Secretary shall continue an aggressive program for the development of prototypes of advanced wind energy systems.

New or improved technology proposals.

(2) As often as he deems appropriate, the Secretary shall solicit and evaluate proposals for the research and development of any new or improved technologies, which, in the Secretary's opinion, will contribute to the development of improvements in current wind energy systems.

(c) The Secretary is authorized to enter into contracts, grants, and cooperative agreements with public and private entities for the purchase, fabrication, installation, and testing to obtain scientific, technological, and economic information from the demonstration of a variety of prototypes of advanced wind energy systems under a variety of circumstances and conditions.

(d) In carrying out the responsibilities under this section, the Secretary is not subject to the requirements of section 553 of title 5, United States Code, or section 501 of the Department of Energy Organization Act (42 U.S.C. 7191).

TECHNOLOGY APPLICATION PROGRAMS

42 USC 9205.

SEC. 6. (a) The Secretary shall establish a technology application program for wind energy systems to achieve the purposes of this Act by reduction in unit costs of wind energy systems through mass production and by determination of operating and maintenance costs through broad operational systems experience.

Federal assistance proposals.

(b) In achieving the objectives of this section, the Secretary shall solicit and evaluate proposals for Federal assistance pursuant to paragraphs (1), (2), and (3) of subsection (c) for investigating, purchasing, and installing such wind energy systems from public or private entities wishing to utilize wind energy systems.

(c) In achieving the objectives of this section, the Secretary is authorized to use various forms of Federal assistance including, but not limited to—

(1) contracts and cooperative agreements;
(2) grants;
(3) loans; and
(4) direct Federal procurement.

(d) In carrying out his duties under this Act, the Secretary is authorized to enter into such contracts and cooperative agreements with any public or private entity as may be necessary or appropriate for the production and utilization of large and small wind energy systems in quantities sufficient to achieve the objectives of this section.

Grants.

(e) In carrying out his duties under this Act, the Secretary shall, within six months of the date of enactment of this Act, establish procedures to allow any public or private entity wishing to install a large wind energy system to apply for and, upon meeting such terms and conditions as the Secretary may prescribe, to receive a direct grant for a portion of the total purchase and installation cost of such wind energy system: *Provided*, That grants for the portion of such cost in the case of large wind energy systems shall not exceed (A) 50 per centum of such cost during the first six years of the program under this subsection, and (B) 25 per centum of such cost during the seventh or eighth year of the program.

Loans.

(f)(1) In carrying out his duties under this Act, the Secretary shall, within six months of the date of enactment of this Act, establish

procedures to allow public or private entities wishing to install a small or large wind energy system to apply for and, upon meeting such terms and conditions as the Secretary may prescribe, to receive loans for up to 75 per centum of the total purchase and installation costs of wind energy systems providing in the aggregate up to three hundred and twenty megawatts peak generating capacity involving at a minimum four projects: *Provided*, That no such loan in any fiscal year shall be for more than 50 per centum of the amount appropriated under this Act for such fiscal year.

(2) Each loan shall be for a term which the Secretary deems appropriate, but no loan shall exceed twenty years beyond the date the wind energy system becomes operational.

Interest rate.

(3) Each loan made pursuant to this section shall bear interest at the discount or interest rate used at the time the loan is made for water resource planning projects under section 80 of the Water Resources Development Act of 1974 (42 U.S.C. 1962(d)–17(a)). Such loan can be prepaid at any time without prepayment penalty and shall be contingent upon such other terms and conditions prescribed by the Secretary.

42 USC 1962d–17.

(g)(1) In carrying out his duties under this Act, the Secretary is authorized to provide funds for the accelerated procurement and installation of small and large wind energy systems by Federal agencies.

Arrangements with appropriate Federal agencies.

(2) The Secretary is authorized to enter into arrangements with appropriate Federal agencies, including the Water and Power Resources Services and the Federal power marketing agencies for large wind energy systems, to carry out such projects and activities as may be appropriate for the broad technology applications of small and large wind energy systems which are suitable and effective for use by such Federal agencies.

Terms and conditions.

(h) The terms and conditions prescribed by the Secretary under this subsection shall require such observation, monitoring, and reporting requirements as the Secretary deems necessary for a period of five years and shall provide for members of the public to view and inspect the system under reasonable conditions.

Terminations.

(i) New Federal assistance for technology applications systems shall terminate upon the appropriate determination by the Secretary, in the annual update of the comprehensive program management plan pursuant to section 4. Termination of the small wind energy systems program shall occur when the Secretary finds that such systems have become economically competitive with conventional energy sources, or on September 30, 1985, whichever occurs first. Termination of the large wind energy systems program shall occur when the Secretary finds that such systems have become economically competitive with conventional energy sources, or on September 30, 1988, whichever occurs first.

WIND RESOURCE ASSESSMENT

42 USC 9206.

SEC. 7. The Secretary shall initiate a three-year national wind resource assessment program. As part of such program, the Secretary shall—

(1) conduct activities to validate existing assessments of known wind resources;

(2) perform wind resource assessments in regions of the United States where the use of wind energy may prove feasible;

(3) initiate a general site prospecting program;

READEX FICHE

(4) establish standard wind data collection and siting techniques; and

National wind data center.

(5) establish, in consultation with the Administrator of the National Oceanic and Atmospheric Administration, the Administrator of the National Aeronautics and Space Administration, and the Administrator of the Environmental Protection Agency, a national wind data center which shall make public information available on the known wind energy resources of various regions throughout the United States.

CRITERIA FOR PROGRAM SELECTION

42 USC 9207.

SEC. 8. The Secretary shall set priorities which are, as far as possible, consistent with the intent and purposes of this Act and which are set in accordance with the following criteria:

(1) the construction, operation, and maintenance costs of wind energy systems shall be minimized;

(2) programs established under this Act shall be conducted with the express intent of bringing wind energy system costs down to a level competitive with energy costs from conventional energy systems;

(3) priority shall be given in the conduct of programs established under this Act to those projects in which cost-sharing funds are provided by private, industrial, agricultural, or governmental entities or utilities; and

(4) to the extent that the Secretary is limited by the availability of funds to carry out the objectives of this Act, priority, but not exclusive emphasis, should be given in the early years of the programs to activities under sections 5 and 7 and in the later years of the programs to activities under section 6.

MONITORING, INFORMATION GATHERING, AND LIAISON

42 USC 9208.

SEC. 9. (a) The Secretary, in coordination with such Government agencies as may be appropriate, shall—

(1) monitor the performance and operation of wind energy systems installed under this Act;

(2) collect and evaluate data and information on the performance and operation of wind energy systems installed under this Act; and

Reports to Congress.

(3) from time to time carry out such studies and investigations and take such other actions, including the submission of special reports to the Congress when appropriate, as may be necessary to assure that the programs for which the Secretary is responsible under this Act effectively carry out the purposes of this Act.

(b) The Secretary shall also maintain continuing liaison with related industries and interests and with the scientific and technical community in order to assure that the benefits of programs under this Act are and will continue to be realized to the maximum extent feasible.

(c) The Secretary shall assure, subject to section 552 of title 5, United States Code, and section 1905 of title 18, United States Code, that full and complete information with respect to any program, project, or other activity conducted under this Act is made available to Federal, State, and local authorities, relevant segments of the economy, the scientific community, and the public so that the early, widespread, and practical use of wind energy throughout the United States is promoted to the maximum extent feasible.

UTILIZATION OF CAPABILITIES AND FACILITIES

SEC. 10. The Secretary shall utilize the technological and management capabilities, equipment, and facilities of the National Aeronautics and Space Administration to the maximum extent practicable in carrying out his duties under this Act, and shall enter into such additional agreements with the Administrator of such Administration as may be necessary for this purpose. 42 USC 9209.

ANALYSIS OF APPLICATIONS OF WIND ENERGY SYSTEMS

SEC. 11. The Secretary shall—

(1) initiate and conduct a federal applications study for wind energy systems, cooperatively with appropriate Federal agencies to determine the potential for the use of wind systems at specific Federal facilities; and this study shall— Federal applications study. 42 USC 9210.

(A) include an analysis which determines those sites at which wind energy systems are economically competitive with the marginal costs of new conventional energy sources in the areas;

(B) identify potential sites and uses of wind energy systems at the following agencies as well as any others which the Secretary deems necessary:

(i) the Department of Defense;

(ii) the Department of Transportation (including the United States Coast Guard, the Federal Aviation Administration, and the Federal Highway Administration);

(iii) the Department of Commerce;

(iv) the Department of Agriculture; and

(v) the Department of the Interior;

(C) provide a preliminary report to the Congress within nine months after the date of enactment of this Act; and Report to Congress.

(D) include the presentation of a detailed plan for the use of wind energy systems for power generation at specific sites in Federal Government agencies to the Congress within twelve months after the date of enactment of this Act; Detailed plan, presentation to Congress.

(2) study the effects, at varying levels of market penetration, of the widespread utilization of wind energy systems on the existing electrical utility system;

(3) determine the necessity for, and make recommendations to the Committee on Energy and Natural Resources of the Senate and the Committee on Science and Technology of the House of Representatives within eighteen months after the date of enactment of this Act on, the need for any additional incentives for either users or manufacturers, in each of the potential markets for wind energy systems, to accelerate the widespread utilization of wind energy technologies; Recommendations to congressional committees.

(4) evaluate the actual performance of wind energy systems in various applications, including but not limited to residential, agricultural, large and small scale irrigation pumping, industrial, commercial, remote nonnetwork utility, and other applications, and report thereon to the Congress within two years after the date of enactment of this Act; Evaluation; report to Congress.

(5) initiate and conduct a study involving the prospects for applications of wind energy systems for power generation in foreign countries, particularly lesser developed countries and the potential for the exploration of these energy systems. This study Study.

shall involve the cooperation of the Department of State and the Department of Commerce, as well as other Federal agencies which the Secretary deems appropriate. A final report shall be submitted to the Congress, as well as a preliminary report within twelve months of the date of enactment of this Act; and

Reports to Congress.

(6) in carrying out his functions under this section, consult with the appropriate government agencies, industry representatives, and members of the scientific and technical community having expertise and interest in this subject.

Merging of studies.

The Secretary, as appropriate, may merge any continuing or on-going studies within the Department of Energy or any other Federal agency with those required under this section to avoid any unnecessary duplication of effort or funding.

ENCOURAGEMENT AND PROTECTION OF SMALL BUSINESS

42 USC 9211.

SEC. 12. (a) In carrying out his functions under this Act, the Secretary shall take steps to assure that small business concerns will have realistic and adequate opportunities to participate in the programs under this Act to the maximum extent practicable.

(b) The Secretary shall, to the maximum extent practicable, use all authority provided by law to protect trade secrets and other proprietary information submitted by small business under this Act and to avoid the unnecessary disclosure of such information.

Compliance with antitrust laws.

(c) The Secretary shall take such steps as may be necessary to assure compliance with the antitrust laws in the conduct of activities related to the manufacture or sale of wind energy systems directly or indirectly assisted under this Act, and shall implement this Act in a manner which will protect against the creation of noncompetitive market situations in the conduct of such activities.

GENERAL PROVISIONS

42 USC 9212.

SEC. 13. (a) Nothing in this Act shall be construed as preventing the Secretary from undertaking projects or activities in addition to those specified in this Act if such projects or activities appropriately further the purposes set forth in this subsection.

(b) This Act applies to each of the several States, the District of Columbia, the Commonwealth of Puerto Rico, the Commonwealth of the Northern Mariana Islands and the territories and possessions of the United States including the Trust Territory of the Pacific Islands.

AUTHORIZATION OF APPROPRIATIONS

42 USC 9213.

SEC. 14. (a) There is authorized to be appropriated to the Secretary to carry out this Act (1) for the fiscal year ending September 30, 1981, the sum of $100,000,000 (of which $10,000,000 shall be available exclusively for purposes of section 7), and (2) for each fiscal year beginning after that date, such sum as may be authorized by legislation hereafter enacted.

(b) In each of the five years of the small wind energy systems program, at least 25 per centum of the total authorization for appropriations under subsection (a) shall be for small wind energy systems activities, including supporting activities.

Approved September 8, 1980.

LEGISLATIVE HISTORY:

HOUSE REPORTS: No. 96-662 (Comm. on Science and Technology) and No. 96-1217 (Comm. of Conference).
SENATE REPORT No. 96-753 (Comm. on Energy and Natural Resources).
CONGRESSIONAL RECORD:
Vol. 125 (1979): Dec. 3, 4, considered and passed House.
Vol. 126 (1980): June 16, considered and passed Senate, amended.
June 20, House concurred in Senate amendment to the text with an amendment, and concurred in the Senate amendment to the title.
Aug. 6, Senate agreed to conference report.
Aug. 26, House agreed to conference report.
WEEKLY COMPILATION OF PRESIDENTIAL DOCUMENTS:
Vol. 16, No. 37 (1980): Sept. 8, Presidential statement.